

What is claimed is:

1. A power line carrier system for performing a power line communication over power lines, said system comprising:

5 an electric device possible to perform the power line communication at least in a signal mode for an in-house external power line; and

10 an apparatus which is removable from the external power line and provided with a signal selector between a side of receiving power from the external power line and a side of supplying the power, said signal selector passing a power line carrier signal in the mode, and interrupting another power line carrier signal which is in a signal mode different from the mode for the external power line.

15 2. A power line carrier system according to claim 1, wherein the apparatus is a power branch apparatus for branching power supplied from the external power line and supplying the power to a connected electric device.

20 3. A power line carrier system according to claim 2, wherein the signal selector interrupts a signal component different in frequency from the power line carrier signal in the mode for the external power line.

25 4. A power line carrier system according to claim 2, wherein the power branch apparatus is provided with a route controller which transmits a power line carrier signal only to an electric device of destination of the signal.

5. A power line carrier system according to claim 2,  
wherein the power branch apparatus is provided with a signal  
converter which converts a mode of a power line carrier signal to  
the mode for the external power line.

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6. A power line carrier system according to claim 5,  
wherein the signal converter converts a frequency of a power line  
carrier signal in a different mode from the mode for the external  
power line to a frequency of the power line signal in the mode  
10 for the external power line.

7. A power line carrier system according to claim 5,  
wherein the signal converter converts a power level of a power  
line carrier signal in a different mode from the mode for the  
15 external power line to a power level of the power line signal in  
the mode for the external power line.

8. A power line carrier system according to claim 1,  
wherein the mode for the external power line is compliant with  
20 ECHONET standard.

9. A power line carrier system according to claim 1,  
further comprising a filter between the inside and outside of a  
house, said filter interrupting the power line carrier signal in  
25 the mode for the external power line.

10. A power line carrier system according to claim 1,  
wherein the electric device has a power code with a shield.

11. An electric device possible to perform a power line communication in a signal mode for an in-house external power line, wherein a signal is converted from in the mode to in another signal mode according to an electric device of  
5 destination of the signal.

12. An electric device according to claim 11, which sends an inquiry to an electric device of destination of the signal in the mode for the external power line, and performs the  
10 conversion according to the inquiry result.

13. An electric device according to claim 11, which performs the conversion of the signal mode according to a communication route toward an electric device of destination of  
15 the signal.

14. An electric device according to claim 11, which performs the conversion whether to be connected to the same power branch apparatus as the electric device of destination of the  
20 signal.

15. An electric device according to claim 11, which transmits a signal after a test signal to an electric device of destination of the signal.  
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16. An electric device according to claim 15, which performs the conversion according to an error rate of the test signal.

17. An electric device according to claim 15, which performs the conversion according to an attenuation rate of the test signal.

5        18. A power branch apparatus for branching power supplied from an in-house external power line, and supplying the power to a connected electric device, which comprises

10        a signal selector between a side of the external power line and a side of the electric device, said signal selector passing a power line carrier signal in a signal mode for the external power line, and interrupting another power line carrier signal which is in a signal mode different from the mode for external power line.

15        19. A method for performing a power line communication between electric devices connected to a power line over the power line, said method comprising the steps of:

20        deciding to adopt either one of a signal mode for an in-house external power line and a different mode from the mode according to an electric device of destination; and

performing power line communication with the electric device in the decided mode.